

Amendments to the Drawings:

An attached sheet of drawings, designated as Sheet 13/13, includes a new Fig. 17 which illustrates the features of the signal preprocessor, sensor type autocorrelator, smoother, source locator and steering vector, as required by the Examiner.

REMARKS

Reconsideration of the above-identified application in view of the amendments above and the remarks following is respectfully requested.

Claims 1 - 47 are in this Application. Claims 1-10, 13-21, 35-38, and 45-47 have been withdrawn from consideration. Claims 11 and 12 have been rejected under 35 U.S.C. § 102. Claims 22-34 and 39 - 44 have been rejected under 35 U.S.C. § 112. Claims 11, 22, 27 and 39 have been amended herewith.

Amendments To The Specification

Amendments are made to the specification to incorporate the new Fig. 17.

Amendments To The Claims

35 U.S.C. § 112 Rejections

Claims 22 and 39 are rejected on the basis that it is not clear what is meant by sensor autocorrelator. Applicant has clarified the phrase to read "sensor type autocorrelator. The definition of the sensor type autocorrelator is given in the continuation of the claim, thus in claim 39:

"a sensor type autocorrelator configured for forming signal autocorrelation matrices for each sensor type,"

Applicant submits that such a phrase would be construed by a court to define a device or unit that forms signal autocorrelation matrices for different types of sensor.

It is therefore believed that the rejection is overcome.

Claims 27 and 29 are rejected on the basis that it is not clear what "sensor type" means. Applicant has clarified the claims to define that the signals are obtained using "sensors of different sensor types". Namely there are actual sensors which are used, and each sensor belongs to a particular type, of which there may be several. Examiner's attention is drawn to claims 42 – 44 which elaborate on sensor types used on particular embodiments.

It is thus believed that this rejection is overcome.

35 U.S.C. § 102 Rejections

Claim 11 is rejected under 35 USC 102 b under Grimes 4,809,009. Claim 11 is further rejected under 35 USC 102 e under Grimes 6,437,750.

Claim 11 has been amended to include the feature that the sharing a common location comprises being centered on a common point. Fig. 7 of the present application clearly shows that both the magnetic and electric dipoles are centered on a common location. Fig. 1 of the earlier Grimes clearly shows that the elements do not share a common center. Fig. 1 of the later Grimes shows that the electric dipoles touch the magnetic dipoles on a single outer perimeter.

The difference is significant. In the present application the intention is to obtain localization of a source in real time by using polarization as an additional parameter for the direction finding technique. Furthermore the presently claimed array structure is the minimal structure that is able to find a direction of the source. The possibility of obtaining polarization as an additional parameter is only because the electric and magnetic dipoles are commonly centered.

There is no suggestion in either Grimes to find the direction of a source. There is no suggestion to use polarization as a parameter. There is no suggestion that the reason he cannot use polarization as a parameter is because he has not provided a common center for his electric and magnetic dipoles. Thus there is no suggestion that he should remedy the situation by centering his electrical dipole at the center of his magnetic dipole, contrary to the requirements of the claim.

For the above reasons it is believed that claim 11 is now new and inventive over the cited prior art.

Claim 12, which is dependent on claim 11, is believed to be allowable for at least the same reasons.

No prior art was cited against any of the other claims.

Amendments To The Drawings

The Examiner objected to the drawings on the ground that they did not illustrate the preprocessor, autocorrelator, smoother, source locator or steering vector.

A new Fig. 17 is added hereby, which shows the above-required features. The Figure is constructed directly from the structure defined in the claims and thus no new matter is added through incorporation of this figure.

In view of the above amendments and remarks it is respectfully submitted that the present claims are now in condition for allowance. A prompt notice of allowance is respectfully and earnestly solicited.

Respectfully submitted,



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Enclosures:

- Petition for Extension (Three Months)
- Complete Set of Replacement Drawing Sheets